

2023-2024 Degree Map-Bachelor of Science in Chemistry: General Option

This map is a term-by-term sample course schedule. The milestones listed to the right of each term are designed to keep you on course to graduate in four years. The Sample Schedule serves as a general guideline to help you build a full schedule each term. See course descriptions and prerequisites at <http://www.atu.edu/catalog/>

Possible careers include: Biophysicist, Chemical Engineer, Chemical Technician, Conservation Scientist, Environmental Engineer, Food & Drug Inspector, Food Technologist, Forensic Science Technician, Industrial Air Pollution Analyst, Industrial Waste Inspector, Materials Scientist, Microbiologist, Pharmacist, Soil Scientist, Toxicologist, Water Pollution Control Inspector

#Prerequisite Courses: ENGL 0303 ___ MATH 0803 ___ MATH 1003 ___ MATH 0903 ___ MATH 1113 ___ MATH 1110 ___ MATH 1203 ___ MATH 1914 ___

Sample Schedule

| Semester 1 | Hrs. | Grade | Milestones/Notes |
|---|------|-------|--|
| ENGL 1013- Comp I (ACTS=ENGL 1013) | 3 | # | |
| Social Science | 3 | | |
| MATH 2914- Calculus I (ACTS= MATH 2405) | 4 | # | #C or > required for Gen Ed. Milestone |
| PHSC 1001- Orientation to Physical Science | 1 | | |
| CHEM 2124/2120- General Chemistry I (ACTS= CHEM 1414) | 4 | # | Milestone |
| Total hours | 15 | GPA | |

| Semester 2 | Hrs. | Grade | Semester 2 |
|---|------|-------|------------|
| ENGL 1023- Comp II (ACTS= ENGL 1023) | 3 | # | |
| BIOL 1114- Principles of Biology (ACTS= BIOL 1014) | 4 | | Milestone |
| MATH 2924- Calculus II (ACTS= MATH 2505) | 4 | | Milestone |
| PHSC 1011- Orientation to Physical Science II (MANDATORY) | 1 | | |
| CHEM 2134/2130- Gen. Chemistry II (ACTS= CHEM 1424) | 4 | # | |
| Total hours | 16 | GPA | |

| Semester 3 | Hrs. | Grade | Semester 3 |
|--|------|-------|--|
| Social Science | 3 | | |
| PHYS 2014/2000- Algebra-Based Physics I | 4 | | or PHYS 2114/2000- Calculus-Based Phys I |
| COMS 2003*- Microcomputer Applications OR COMS 2803-Programming in C | 3 | | *(COMS 2003 prereq.= COMS 1003) |
| CHEM 3254- Fund. of Organic Chemistry | 4 | # | Milestone |
| Total hours | 14 | GPA | |

| Semester 4 | Hrs. | Grade | Semester 4 |
|--|------|-------|---|
| U.S. History & Government | 3 | | |
| PHYS 2024/2010- Algebra-Based Physics II | 4 | | or PHYS 2114/2000- Calculus-Based Phys II |
| CHEM 3245- Quantitative Analysis | 5 | # | |
| CHEM 3264- Mechanistic Organic Chemistry | 4 | # | |
| Total hours | 16 | GPA | CHEM ADVISOR ASSIGNED |

The Arkansas Course Transfer System (ACTS) is designed to assist in planning the academic progress of students. This system contains information about the transferability of courses within Arkansas public colleges and universities. The Arkansas Course Transfer System can be accessed by searching keyword "ACTS" at <https://adhe.edu/>

| Fine Arts and Humanities | U.S. History & Government |
|--|---|
| ART 2123 Experiencing Art (ACTS=ARTA1003) | HIST 1903 Survey of American History |
| MUS 2003 Introduction to Music (ACTS=MUSC1003) | HIST 2003 U.S. History to 1877 (ACTS=HIST2113) |
| TH 2273 Introduction to Theatre (ACTS=DRAM 1003) | HIST 2013 U.S. History since 1877 (ACTS=HIST2123) |
| ENGL/JOUR 2173 Introduction to Film | POLS 2003 American Government (ACTS=PLSC2003) |
| ENGL 2003 Introduction to World Literature (ACTS=ENGL2113) | |
| ENGL 2013 Intro. to American Literature (ACTS=ENGL2653) | Communication Courses |
| PHIL 2003 Introduction to Philosophy (ACTS=PHIL1103) | COMM 1003 Intro to Speech Comm |
| PHIL 2053 Introduction to Critical Thinking (ACTS=PHIL 1003) | COMM 2003 Public Speaking |
| 1013 from SPAN, FR, GER, JPN, CHIN, or LAT | COMM 2173 Business and Professional Speaking |
| 1023 from SPAN, FR, GER, JPN, CHIN, or LAT | |

University Honors students should consult Course Catalog for appropriate Fine Arts/Humanities, US History/Government and Social Science options for University Honors Curriculum.

Sample Schedule

| Semester 5 | Hrs. | Grade | Milestones/Notes |
|--|------|-------|---------------------------------------|
| Fine Arts & Humanities | 3 | | |
| CHEM 3301- Chemistry Seminar | 1 | # | |
| CHEM 3324- Physical Chemistry I | 4 | # | |
| CHEM 3423- Descriptive Inorganic Chemistry | 3 | # | |
| Science Elective | 3 | | See Tech Catalog for approved choices |
| *General Elective | 1 | | |
| Total hours | 15 | GPA | |

| Semester 6 | Hrs. | Grade | Semester 6 |
|---------------------------------------|------|-------|-----------------------------|
| Fine Arts & Humanities | 3 | | |
| CHEM 3344- Principles of Biochemistry | 4 | # | |
| *General Elective | 3 | | |
| *General Elective | 2 | | |
| Total hours | 12 | GPA | APPLY FOR GRADUATION |

| Semester 7 | Hrs. | Grade | Semester 7 |
|---|------|-------|---------------------------------------|
| CHEM 4414- Instrumental Analysis | 4 | # | |
| CHEM Elective (excludes CHEM 1113/1111) | 3 | # | See Tech Catalog for approved choices |
| *General Elective | 3 | | |
| *General Elective | 3 | | |
| General Elective | 3 | | |
| Total hours | 16 | GPA | |

| Semester 8 | Hrs. | Grade | Semester 8 |
|--------------------------------------|------|-------|--|
| Social Sci/Fine Arts/Humanities/Comm | 3 | | |
| CHEM 4401- Chemistry Seminar | 1 | # | |
| CHEM Elective | 3 | # | |
| *General Elective | 3 | | Graduation Requirements: Min. hours 3000-4000 level courses: 40 No more than 4 PE activity hours Min. hours required:120 |
| *General Elective | 3 | | |
| *General Elective | 3 | | |
| Total Hours | 16 | GPA | 2.00+ GPA |

*General Electives: 14 hours (1000-4000 level); 10 hours (3000-4000 level)

Recommended electives: German, Statistics, or ENGL 2053 (ACTS=ENGL2023)

indicates a "C" or better is required

| Social Sciences |
|---|
| HIST 1503 World History to 1500 (ACTS=HIST1113) |
| HIST 1513 World History since 1500 (ACTS=HIST1123) |
| HIST 2003 U.S. History to 1877 (ACTS=HIST2113) |
| HIST 2013 U.S. History since 1877 (ACTS=HIST2123) |
| HIST 1903 Survey of American History |
| POLS 2003 American Government (ACTS=PLSC2003) |
| ECON 2003 Principles of Macroeconomics (ACTS=ECON2103) |
| ECON 2013 Principles of Microeconomics (ACTS=ECON2203) |
| SOC 1003 Introductory Sociology (ACTS=SOCI1013) |
| PSY 2003 General Psychology (ACTS=PSYC1103) |
| ANTH 1213 Intro. to Anthropology (ACTS=ANTH1013) |
| ANTH 2003 Cultural Anthropology (ACTS=ANTH2013) |
| GEOG 2013 Regional Geography of the World (ACTS=GEOG2103) |
| AMST 2003 American Studies |
| FIN 2013 Personal Finance |
| LEAD 1003 Introduction to Leadership |